

Application No. 09/593,591
Amendment dated June 14, 2004
Reply to Office Action of February 6, 2004

REMARKS

Applicant cancelled claims 3, 6, 21, 31, 45, 48, 87, 90, 165, 167, 185, 187, 205, 207, 225, 227, 245, 247, 265, and 267, and amended claims 1, 4, 5, 43, 46, 47, 85, 88, 89, 127-129, 163, 166, 175, 183, 186, 195, 203, 206, 215, 223, 226, 235, 242, 243, 246, 255, 263, 266, 275, and 282 to further define Applicant's claimed invention.

In the Office Action, the Examiner contends that the total number of claims after Applicant's response of November 14, 2003 presented too many issues for consideration. Applicant respectfully disagrees with the Examiner's contention. The claims that depend from independent claim 163 are repeated to depend from independent claims 183, 203, 223, 243, and 263, respectively, and add substantially the same subject matter to each of the independent claims. Thus, the number of claims do not present numerous issues as contended by the Examiner. Further, Applicant identified features distinguishing each of the new independent claims from the cited art for the Examiner in the remarks of Applicant's November response as a guide to examining the claims. Accordingly, Applicant respectfully submits that the number of claims do not present too many issues for consideration.

Moreover, Applicant is unaware of any limitation on the number of claims that Applicant is permitted to have examined in an application. To date, Applicant paid in excess of \$4,700.00 in extra claims fees to the Office to have the claims of the above-identified application examined. Applicant respectfully submits that the Office is obligated to examine Applicant's claims for which the proper fees have been paid. In order to assist the Examiner and facilitate prosecution of the above-identified application, Applicant is available to the Examiner for an interview, either telephonic or in person, to discuss the claims of the present application and to address any issues of concern to the Examiner.

The Examiner rejected dependent claim 31 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicant respectfully

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disagrees with the Examiner's rejections for the reasons set forth in Applicant's reply dated November 14, 2003. Nonetheless, in order to expedite prosecution of the above-identified application, Applicant has canceled claim 31, thus rendering the Examiner's rejection moot.

The Examiner rejected dependent claims 242 and 282 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully disagrees with the Examiner's contention that the phrase "at least two" is new matter because one of ordinary skill in the art would appreciate from Applicant's disclosure that at least two bone screw openings are disclosed in Fig. 7. Nonetheless, in order to expedite prosecution of the above-identified application, Applicant replaced the phrase "at least two" objected to by the Examiner with the phrase "a plurality of," which is supported, for example, in Fig. 7.

The Examiner rejected dependent claims 175, 195, 215, 235, 255, and 275 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner contends that the scope of claims 175, 195, 215, 235, 255, and 275 is rendered indefinite "because it depends upon the size of the implantee's vertebrae." (Office Action, page 3, paragraph 2). Claims 175, 195, 215, 235, 255, and 275 as now amended recite an implant having a width greater than one half the width of the adjacent vertebral bodies "adjacent the implantation space into which said implant is to be inserted." The claims of this application are written for understanding by a person of ordinary skill in the relevant art, namely the art of spinal surgery. A person of ordinary skill in the art of spinal surgery is well aware of the dimensions of the human spine. A skilled surgeon is capable of ascertaining the width of a vertebral body and then selecting a spinal implant of an appropriate size to fit the ascertained dimension. It is the custom and practice of those skilled in the art to appropriately size an implant to the particular vertebral body and disc space to be fused during the time of surgery. The occasion of the use of the Implant allows for the desired

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measuring and determination of the appropriately sized implant. In this case, a person skilled in the art would be capable of ascertaining an implant width being greater than one half the width of the vertebral bodies adjacent the implantation space into which the implant is to be inserted. Accordingly, Applicant submits that claims 175, 195, 215, 235, 255, and 275 are definite and that the Examiner's rejection under 35 U.S.C. § 112, second paragraph has been overcome.

The Examiner rejected claims 1-22, 25, 30-35, 43-63, 71-77, 85-106, 109, 114-119, 127-129, 148, 153, 158, 163, 171, 174, 175, 179, 180, 183, 184, 188-191, 193-195, 199, 200, 203, 204, 208-211, 213-215, 219, 220, 223, 224, 228-231, 233-235, 239, 240, 243, 244, 248-251, 253-355, 259, 260, 263, 264, 268-271, 273-275, 279, and 280 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,277,149 to Boyle et al. or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Boyle et al. alone. Independent claims 1, 43, and 85 recite an implant having opposite exterior sides "having straight portions that are generally parallel to each other" and an opening for permitting bone growth through the implant, "said opening being between said straight portions of said opposite exterior sides and having a maximum width transverse to the mid-longitudinal axis of said body, said trailing end having a non-linear portion between two lines parallel to the mid-longitudinal axis, the parallel lines being spaced apart from one another on opposite sides of the mid-longitudinal axis and intersecting the maximum width of said opening." Boyle et al. do not teach or suggest an implant as claimed by Applicant in any one of independent claims 1, 43, and 85.

Independent claims 163, 183, and 203 recite an implant having a leading end with a generally straight portion in a direction from opposite exterior side to opposite exterior side of the implant, a trailing end that is at least in part curved along a middle portion of the trailing end of the implant, opposite exterior sides "having straight portions that are generally parallel to each other," and an opening for permitting bone growth through the implant, "said opening being between said straight portions of said opposite exterior sides." Boyle et al. do not teach or suggest an implant as claimed by Applicant in any one of independent claims 163, 183, and 203.

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Independent claims 223, 243, and 263 recite an implant having a leading end with a generally straight portion in a direction from opposite exterior side to opposite exterior side of the implant, a trailing end having "an arcuate portion on each side of a vertical longitudinal plane along the mid-longitudinal axis and bisecting said implant between said opposite exterior sides, each of said arcuate portions forming a part of an oval," opposite exterior sides "having straight portions that are generally parallel to each other," and an opening for permitting bone growth through the implant, "said opening being between said straight portions of said opposite exterior sides." Boyle et al. do not teach or suggest an implant as claimed by Applicant in any one of independent claims 223, 243, and 263.

Applicant respectfully traverses the Examiner's contention that the term "generally" modifies "straight" so that it can be said that the implant of Boyle in Figs. 10 and 12 has a leading end having a generally straight portion. The entire perimeter of the implant in Fig. 10 of Boyle is circular. (See Boyle, Fig. 10). In Fig. 12, the leading end is entirely curved from side to side. (See Boyle, Fig. 12, far left of figure). The Examiner is applying the term "generally" to modify "straight" to unreasonably to cover embodiments of Boyle that are circular or entirely curved. Applicant also respectfully disagrees with the Examiner's contention that "said leading end having a generally straight portion" reads on the grooves or ridges 128, 228 as an alternative. In Figs. 10 and 12 of Boyle, ridges 228 are formed on the upper and lower surfaces of the implant and not on the leading end of the implant. (See Boyle, col. 5, lines 40-41 and Fig. 10). Accordingly, Applicant submits that the Examiner's rejection of claims 1-22, 25, 30-35, 43-63, 71-77, 85-106, 109, 114-119, 127-129, 148, 153, 158, 163, 171, 174, 175, 179, 180, 183, 184, 188-191, 193-195, 199, 200, 203, 204, 208-211, 213-215, 219, 220, 223, 224, 228-231, 233-235, 239, 240, 243, 244, 248-251, 253-355, 259, 260, 263, 264, 268-271, 273-275, 279, and 280 has been overcome.

The Examiner also rejected claims 26-29, 67-70, 110-113, 149-152, 155-157, 159-162, 172, 177, 178, 182, 197, 198, 202, 212, 217, 218, 222, 232, 237, 238, 242,

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252, 257, 258, 262, 272, 277, 278 and 282 under 35 U.S.C. § 103(a) as being unpatentable over Boyle et al. in view of U.S. Patent No. 5,397,364 to Kozak et al.; rejected claims 36-42, 78-84, 120-126, 165-170, 181, 185-187, 201, 205-207, 221, 225-227, 241, 245-247, 261, 265-267 and 281 under 35 U.S.C. § 103(a) as being unpatentable over Boyle et al. alone; rejected claim 72 under 35 U.S.C. § 103(a) as being unpatentable over Boyle et al. in view of U.S. Patent No. 5,306,308 to Gross et al.; and rejected claims 23, 24, 64, 65, 107, 108, 176, 196, 216, 236, 256, and 276 under 35 U.S.C. § 103(a) as being unpatentable over Boyle et al. in view of U.S. Patent No. 5,669,909 to Zdeblick et al. Applicant submits that the rejections over claims 23, 24, 36-42, 64, 65, 78-84, 107, 108, 120-126, 165-170, 176, 181, 185-187, 196, 201, 205-207, 216, 221, 225-227, 236, 241, 245-247, 256, 261, 265-267, 276, and 281 have been overcome at least because they depend from an allowable independent claim, or claims dependent therefrom.

Accordingly, Applicant submits that independent claims 1, 43, 85, 163, 183, 203, 223, 243, and 263 are allowable over the cited art and that dependent claims 2-30, 32-42, 44-84, 86-129, 148-162, 164-182, 184-202, 204-222, 224-242, and 264-282, dependent from one of independent claims 1, 43, 85, 163, 183, 203, 223, 243, and 263, or claims dependent therefrom are allowable at least due to their dependency from an allowable independent claim.

In view of the foregoing remarks, it is respectfully submitted that the claims, as amended, are patentable. Therefore, it is requested that the Examiner reconsider the outstanding rejections in view of the preceding comments. Issuance of a timely Notice of Allowance of the claims is earnestly solicited.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this reply, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including

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any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 50-1066.

Respectfully submitted,

MARTIN & FERRARO, LLP

Dated: 6-14-04

By: 

Amedeo F. Ferraro

Registration No. 37,129

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700
Facsimile: (330) 877-2030